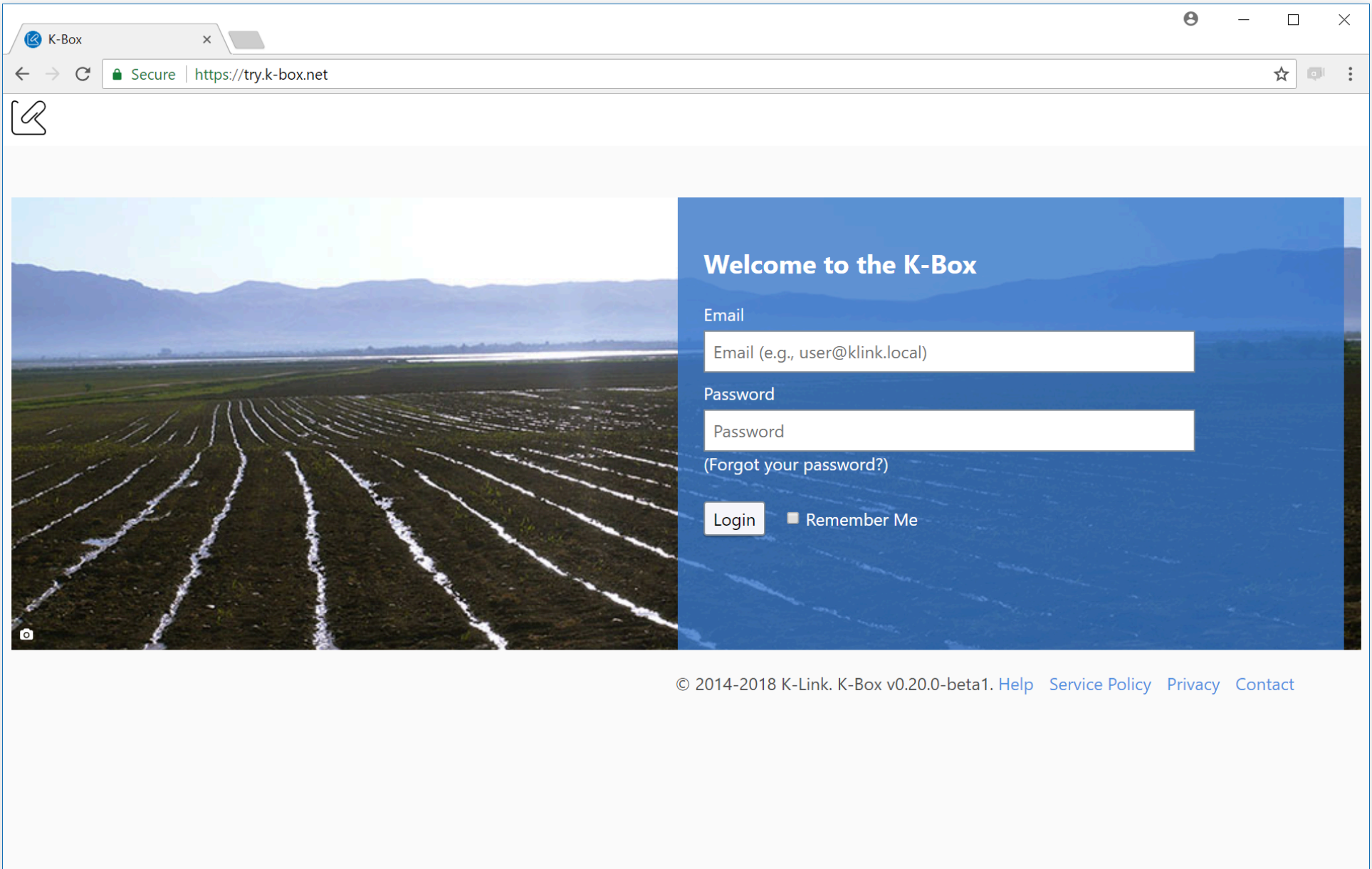


Install and manage a K-Box

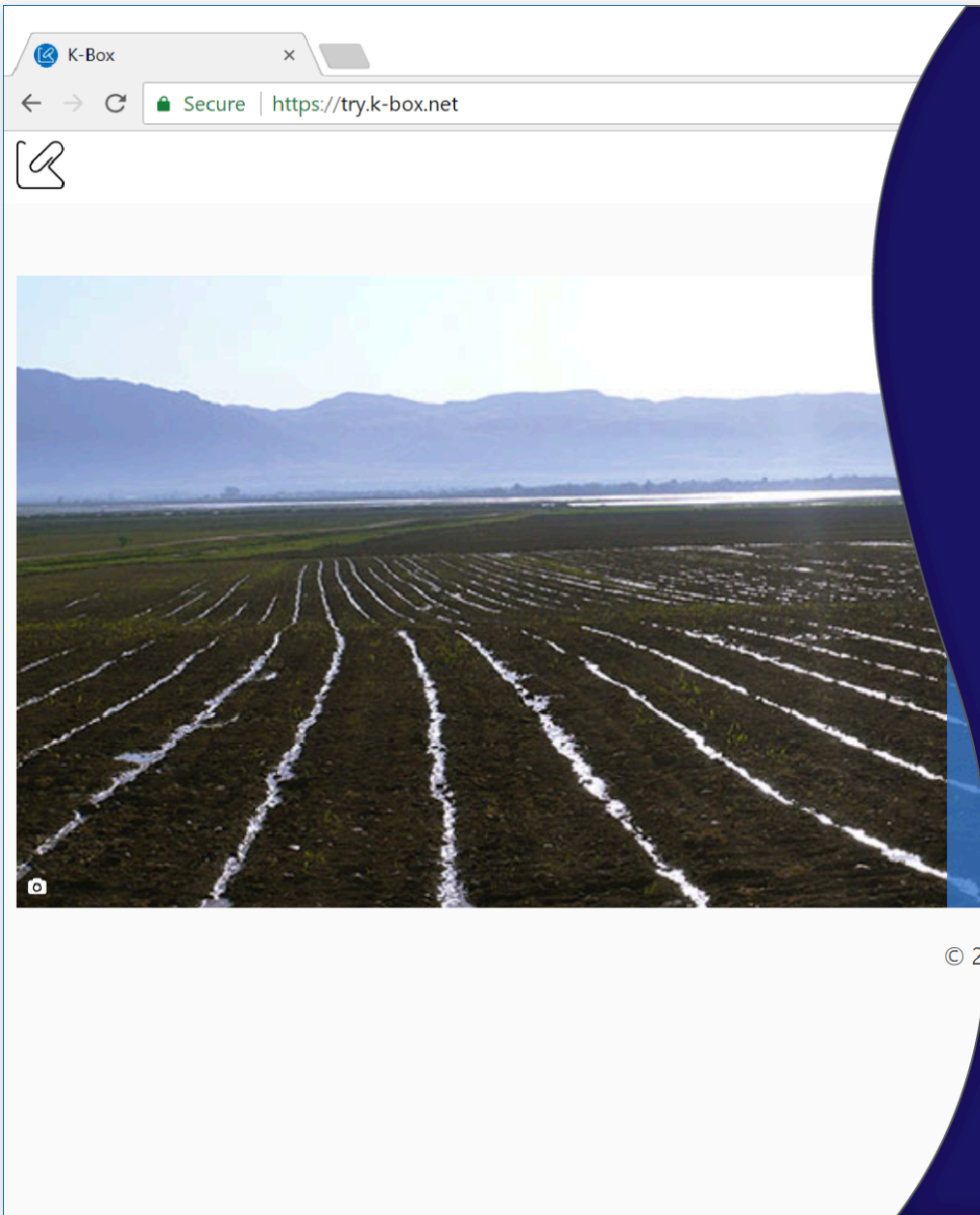
Alessio Vertemati

What we will see?

- A local production K-Box installation
- How to start/stop a K-Box
- How to investigate problems
- How to upgrade a K-Box



the K-Box is a **web application**



Web Browser

K-Box Application



K-Search



Database



File Storage



a server, **your computer**

to offer the features requires different type of components

Local installation
or as we call it, deploy

The challenge was **make the deployment
reproducible and easy**

We opted to use **Docker**

- Reproducible setups
- Isolation
- Orchestration

<https://www.docker.com/what-docker>

we choose docker because

each
component is
packaged and
confine the
dependencies

we have different
components that have
different requirements
Different services might
depend on different
versions of the same
technology

reproducible
environment

orchestrate the
components for us

security

all changes disappear after
restart unless you specify
otherwise

<https://www.docker.com/what-container>

Docker image

where the code lives

**Docker
container**

when an image is executed

thanks to **Docker Compose** the configuration can be expressed in a single YAML file

github.com/k-box/k-box/blob/master/docker-compose.example.yml

```
version: '2'
networks:
  internal:
services:
  ## The Search Engine service
  engine:
    image: "docker.klink.asia/./images/k-search-engine:0.4.2"
    volumes:
      - "./storage/index:/opt/solr/k-search/k-search/data"
    expose:
      - "8983"
    networks:
      - internal
```

Demo

What to do After the installation?

- Configure the email server
- Add users
- Add contact information
- ...

**What if something fails or users
have problems**

Logs

```
docker-compose logs [--follow] kbox
```

```
docker-compose exec kbox ls storage/logs
```

Accessing the container

```
docker-compose exec kbox bash
```

the integrated shell

```
php artisan tinker
```

A new version, **0.21.1**, of the K-Box is released

```
## docker-compose.yml
## The K-Box container
kbox:
image: "docker.klink.asia/./images/k-box:0.21.1"
depends_on:
```

```
docker-compose stop && docker-compose up -d
```

**95% of the releases requires 2-4 minutes for the
upgrade***

*Download time excluded

Search related upgrades might require extra steps

```
docker-compose exec kbox php artisan dms:reindex
```

What we saw

- How to deploy a local K-Box using Docker
- What to do to finalize the configuration
- How to enter the running container and see the logs
- Updates

